

Lane Construction Corporation
Washington County
Calais, Maine
A-869-71-A-N

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**DEPARTMENTAL
FINDINGS OF FACT AND ORDER
AIR EMISSION LICENSE**

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Lane Construction Corporation (Lane), located in Calais, Maine has applied for an Air emission License, permitting the operation of a hot mix asphalt plant, heater and two generators.

B. Emission Equipment

Asphalt Plant:

<u>Equipment</u>	<u>Process Rate (tons/hour)</u>	<u>Design Capacity Firing Rate</u>	<u>Control Devices</u>	<u>Stack ID</u>	<u>Date of Manufacture</u>
Drum mix asphalt plant	200	66.0 MMBtu/hr, 0.35% sulfur #2 fuel oil.	Baghouse	67	1984

Oil Heater

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Fuel Type</u>	<u>Max. Firing Rate</u>
H1	2.0 MMBtu/hr	0.35% sulfur #2 fuel oil	14.3 gal/hr

Diesel Units

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Fuel Type</u>	<u>Max. Firing Rate</u>
G1	3.12 MMBtu/hr	0.35% sulfur #2 fuel oil	22.8 gal/hr
G2	0.9 MMBtu/hr	0.35% sulfur #2 fuel oil	6.5 gal/hr

C. Application Classification

The application for Lane is classified as non-major based on the hot mix asphalt plant, Oil Heater and generator emissions. The license is for a non-major source and has been processed as such.

II. BEST PRACTICAL TREATMENT

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations. BPT for new units consists of meeting Best Available Control Technology (BACT).

A. Asphalt Plant

The drum mix asphalt plant was manufactured in 1984 and is therefore subject to EPA New Source Performance Standards (NSPS) Subpart I for Hot Mix Asphalt Facilities manufactured after June 11, 1973.

Emissions from the asphalt operation and rotary kiln shall vent to a baghouse to meet the requirements of BACT. The rotary kiln fires #2 fuel oil and specification waste oil, with a sulfur content not to exceed 0.35%. Fuel use shall not exceed 700,000 gal/year total based on a 12 month rolling total. Regulated pollutants emitted from the rotary kiln are particulate matter (PM), particulate matter with a diameter smaller than ten microns (PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC).

A summary of the BACT analysis for each of the pollutants is discussed below:

1. Chapter 106 regulates fuel sulfur content, however the use of 0.35% sulfur by weight fuel is more stringent and shall be used. SO₂ emission rates are based on all of the sulfur present in the fuel being converted to SO₂.
2. PM emission limits from asphalt plants are regulated by 40 CFR Subpart I and MEDEP Chapter 105. However, 0.03 gr/dscf (5.64 lb/hr) is more stringent and shall be used.
3. NO_x, CO and VOC emission limits are based upon AP-42 data dated 12/00 for drum mix asphalt plants.
4. Opacity from the asphalt plant baghouse is limited to no greater than 20% on a six (6) minute block average, except for no more than two (2), six (6) minute block averages in a 3-hour period.

The performance of the baghouse shall be constantly monitored by either one of the following at all times the rotary kiln is operating:

1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Lane shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

Fugitive particulate emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

Petroleum contaminated soil processing cannot exceed 10,000 cubic yards per year without prior approval from the Department. The facility shall only process soils contaminated with virgin oil without prior approval from the Department.

B. Oil Heater

The Oil Heater maintains the liquid asphalt at a specified temperature and is rated at 2.0 MMBtu/hr operating on #2 fuel oil having a maximum sulfur content of 0.35%. This heater is not subject to NSPS requirements.

- Emission rates for PM and PM₁₀ are based on BACT of 0.08 lb/MMBtu.
- SO₂ emission data was based on fuel sulfur mass balance.
- Emission rates for NO_x is based on BACT of 0.3 lb/MMBtu.
- CO and VOC emission rates are based on AP-42 data dated 10/96 for oil fired boilers firing #2 fuel oil and having a heat input of 0.1 to 10 MMBtu/hr.
- Opacity shall not exceed 20 percent on a six (6) minute block average basis, except for no more than one (1) six minute block average in a 3-hour period.

C. Diesel Units

Diesel units G1 and G2 are utilized primarily to provide electrical power. Total fuel use in the diesel units shall not exceed 50,000 gal/year of diesel fuel.

BACT for the diesel unit is:

1. PM and PM₁₀, emission rates for G1 are regulated by MEDEP Chapter 103.
2. NO_x, CO and VOC emission limits for G1 are based upon AP-42 data dated 10/96 for diesel engines smaller than 600 horsepower.
3. PM, PM₁₀, NO_x, CO and VOC emission limits for G2 are based upon AP-42 data dated 10/96 for diesel engines smaller than 600 horsepower.
4. Chapter 106 regulates fuel sulfur content, however the use of 0.35% sulfur by weight fuel is more stringent and shall be used.
5. SO₂ emission data was based on fuel sulfur mass balance.
6. Opacity shall not exceed 30% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

D. Stock Piles and Roadways

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

E. Facility Emissions

Lane has the following annual emissions, based on:

- 700,000 gallons per year #2 fuel oil (0.35% sulfur by weight maximum) in the drum mix asphalt plant and oil heater combined.
- 50,000 gallons per year #2 fuel oil (0.35% sulfur by weight maximum) in the generators.

(all based on a 12 month rolling total)

Total Allowable Annual Emissions for the Facility
(used to calculate the annual license fee)

Pollutant	Tons/year
PM	5.3
PM ₁₀	5.3
SO ₂	18.5
NO _x	23.6
CO	22.6
VOC	6.0

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulation Chapter 115, the level of air quality analyses required for a minor new source shall be determined on a case-by-case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,
will not violate applicable emission standards,
will not violate applicable ambient air quality standards in
conjunction with emissions from other sources.

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AIR EMISSION LICENSE**

The Department hereby grants Air Emission License A-869-71-A-N, subject to the following conditions:

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. § 353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an

application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.

- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - (i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - b. pursuant to any other requirement of this license to perform stack testing.
 - (ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - (iii) submit a written report to the Department within thirty (30) days from date of test completion.
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
 - (i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - (ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - (iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- (16) **Asphalt Plant**
- a. Emissions from the hot mix asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks.
 - b. The performance of the baghouse shall be constantly monitored by either one of the following at all times the rotary dryer is operating:
 1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, Lane shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
 2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the asphalt plant is operating with insufficient control and corrective action shall be taken immediately.
 - c. To document maintenance of the baghouse, Lane shall keep a maintenance log recording the date and location of all bag failures as well as all routine maintenance. The maintenance log shall be kept on-site at the asphalt plant location.
 - d. Opacity from the baghouse is limited to no greater than 20% on a 6 minute block average basis, except for no more than 2 six minute block averages in a continuous 3 hour period.
 - e. General process emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

- f. Fuel use records and receipts for the asphalt rotary dryer shall be maintained for at least six years and made available to the Department upon request. A log shall also be maintained recording the quantity and analyzed test results of all specification waste oil used in the dryer.
- g. Lane shall be limited to the use of 700,000 gal/year of #2 fuel oil (12 month rolling total), with a sulfur content not to exceed 0.35% in the rotary dryer and oil heater (total). Compliance shall be demonstrated using fuel use records maintained on a 12-month rolling total and the records shall include fuel percent sulfur as documented by receipts.
- h. Emissions from the baghouse shall not exceed the following:

<u>Pollutant</u>	<u>grs/dscf</u>	<u>lb/hr</u>
PM	0.03	5.64
PM ₁₀	-	5.64
SO ₂	-	23.27
NO _x	-	11.00
CO	-	26.00
VOC	-	6.4

- h. The licensee shall not process more than 10,000 cubic yards of petroleum contaminated soils per year without prior approval from the Department. The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management.
- i. The licensee shall only process soils contaminated with virgin oil without prior approval from the Department.
- j. The licensee shall not process contaminated soils which are classified as hazardous waste or which have unknown contaminants.
- k. When processing petroleum contaminated soils, the licensee shall maintain records which specify the quantity and type of contaminant in the soil, the origin of the soil and the contaminant, and the characterization of the contaminated soil. In addition when processing contaminated soil, the licensee shall maintain records of processing temperature, asphalt feed rate, fuel use, soil moisture content, and dryer throughput, on an hourly basis.

(17) **Oil Heater**

- A. The sulfur content of the fuel oil fired in the heater shall not exceed 0.35% by weight. Compliance shall be demonstrated using fuel use records maintained on a 12-month rolling total and the records shall include fuel percent sulfur as documented by receipts..

B. Emissions from the Oil Heater shall not exceed the following:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.16
PM ₁₀	0.16
SO ₂	0.71
NO _x	0.60
CO	0.07
VOC	0.01

C. Visible Emissions

Opacity shall not exceed 20 percent on a six (6) minute block average basis, except for no more than one (1) six minute block average in a 3-hour period.

(18) Diesel Units

- A. Fuel use records and supplier receipts for the diesel fuel used in units G1 and G2 shall be maintained for at least six years and available to the Department upon request.
- B. Lane shall not exceed the total use of 50,000 gal/year of diesel fuel (12 month rolling total), with a sulfur content not to exceed 0.35% by weight in generators G1 and G2.
- C. Emissions from generator G1 shall be limited to the following:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.12	0.37
PM ₁₀	n/a	0.37
SO ₂	n/a	1.10
NO _x	n/a	13.80
CO	n/a	2.96
VOC	n/a	1.09

D. Emissions from generator G2 shall be limited to the following:

<u>Pollutant</u>	<u>lb/hr</u>
PM	0.28
PM ₁₀	0.28
SO ₂	0.32
NO _x	3.97
CO	0.86
VOC	0.32

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E. Visible emissions from the diesel units shall not exceed 30% opacity on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period..

(19) Stockpiles and Roadways

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

(20) Equipment Relocation

a. Lane shall notify the Bureau of Air Quality, by a written notification at least 10 days in advance, prior to relocation of any equipment carried on this license. The notification shall be sent to:

Attn: Relocation Notice
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location and the license number pertaining to the relocated equipment.

b. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

(21) Lane shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order.

(22) The Hot Mix Asphalt Plant is subject to 40 CFR Part 60 Subparts A, and I and Lane shall comply with the notification and recordkeeping requirements of 40 CFR Part 60.7. The performance test shall be completed within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup of the unit (reference 40 CFR Part 60.8). Lane shall submit a test notice to the regional inspector at least 30 days prior to the performance test.

(23) Lane shall pay the annual air emission license fee within 30 days of **July 30** of each year. Pursuant to Title 38-353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under section 341-D, subsection 3.

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(24) The term of this order shall be for five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF , 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: June 27, 2003

Date of application acceptance: July 7, 2003

Date filed with the Board of environmental Protection: _____

This order prepared by Mark E. Roberts, Bureau of Air Quality.